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ABSTRACT

Integrating mathematics with other disciplines is an important issue for mathematics education. Writing is one such discipline that can be usefully integrated with mathematics instruction. This collection of essays on the use of writing to teach mathematics is an outgrowth of sessions of contributed papers presented at the 1988 and 1989 Annual Meetings of the Mathematical Association of America (MAA). The essays in this collection offer specific suggestions for beginning writing programs and routine matters such as grading, correcting grammar, and the importance of rewriting. Several essays describe student reaction to writing in mathematics class and how to involve students in reviewing and grading the work of others. Chapters include: (1) "Mathematicians Write: Mathematics Students Should, Too" (Ann K. Stehney); (2) "Writing for Educational Objectives in a Calculus Course" (Sandra Z. Keith); (3) "Writing in Mathematics: A Plethora of Possibilities" (Timothy Sipka); (4) "A Reply To Questions from Mathematics Colleagues on Writing Across the Curriculum" (Emelie Kenney); (5) "Writing in Mathematics at Swarthmore: PDCs" (Stephen B. Maurer); (6) A Writing Program and Its Lesson for Mathematicians" (Ann K. Stehney); (7) "Writing in the Math Classroom: Math in the Writing Class (Or How I Spent My Summer Vacation)" (Thomas W. Rishel); (8) "A Writing Intensive Mathematics Course" (Arthur T. White); (9) "Writing, Teaching, and Learning in Mathematics: One Set of Experiences" (Richard J. Maher); (10) "Technical Writing for Mathematics Projects" (J. Douglas Faires and Charles A. Nelson); (11) "But This Is Not an English Class" (Andre Michelle Lubecke); (12) "You Can and Should Get Your Students To Write in Sentences" (Melvin Henriksen); (13) "Three R's for Mathematics Papers--'Riting, Refereeing, and Rewriting" (Thomas Q. Sibley); (14) "Attempting Mathematics in a Meaningless Language" (Martha B. Burton); (15) "Using Expressive Writing To Support Mathematics Instruction: Benefits for the Student, Teacher, and Classroom" (Barbara Rose); (16) "Rewriting Our Stories of Mathematics" (Linda Brandau); (17) "Writing in Mathematics: A Vehicle for Development and Empowerment" (Dorothy Buerk); (18) "Two Perspectives on a Writing Intensive Course in Operations Research" (Mary Margaret Hart McDonald and Coreen Mett); (19) "A Writing Fellows Program Meets an Abstract Algebra Class: The Instructor's and the Fellow's Perspective" (John O. Kiltinen and Lisa M. Mansfield); (20) "Writing

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Abstracts as a Means of Review" (David G. Hartz); (21) "Journals and Essay Examinations in Undergraduate Mathematics" (Gary L. Britton); (22) "Weekly Journal Entries--An Effective Tool for Teaching Mathematics" (Louis A. Talman); (23) "Writing Assignments and Course Content" (Joanne E. Snow); (24) "Library and Writing Assignments in an Introductory Calculus Class" (John R. Stoughton); (25) "Teaching Mathematics within the Writing Curriculum" (David T. Burkam); (26) "Writing about Proof" (Keith Hirst); (27) "Using Writing To Improve Student Learning of Statistics" (Robert W. Hayden); (28) "Integrating Writing into the History of Mathematics" (Dorothy Goldberg); (29) "Writing To Learn and Communicate Mathematics: An Assignment in Abstract Algebra" (Anne E. Brown); (30) "Writing in a Non-Euclidean Geometry Course" (Richard S. Millman); and (31) "The Essay as a Cognitive Map" (James V. Rauff). (ASK)

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